

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicants: Sheng-Hsin HU  
Ronald Lee EDENS  
Jeffrey Dean LINDSAY  
Thomas Gerard SHANNON

Title: COATED ACTIVATED CARBON

Express Mail No.: EV386355942US

Date of Deposit: 25 February 2004

**FIRST INFORMATION DISCLOSURE STATEMENT**

**Mail Stop PATENT APPLICATION**

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Dear Sir:

In accordance with Rule 1.56, the references listed on the attached Form PTO-1449 were cited during prosecution of the patent application listed below, which is relied upon for an earlier filing date under 35 U.S.C. 120:

Title: COATED ACTIVATED CARBON  
Applicant(s): Hu et al.  
Serial No.: 09/738,103  
Filing Date: 15 December 2000  
Attorney Docket No.: 16,029

and is hereby brought to the attention of the Examiner as possibly being material to examination of the subject patent application.

Express Mail No.: EV386355942US

K-C 16029.1

Copies of these references are not enclosed as they are contained in the file of the related parent application.

Respectfully submitted,

A handwritten signature in black ink, appearing to read 'M. Swanson', with a horizontal line extending to the right.

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FORM PTO-1449  
(MODIFIED)U.S. DEPARTMENT OF COMMERCE  
PATENT AND TRADEMARK OFFICE

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(Use several sheets if necessary)

APPLICANT(S)

Sheng-Hsin HU et al.

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**U.S. PATENT DOCUMENTS**

*EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
	AA	2,690,415	09/1954	Shuler			
	AB	2,799,241	07/1957	Wurster			
	AC	3,089,824	05/1963	Wurster			
	AD	3,117,024	01/1964	Ross			
	AE	3,196,827	07/1965	Wurster et al.			
	AF	3,207,824	09/1965	Wurster et al.			
	AG	3,241,520	03/1966	Wurster et al.			
	AH	3,253,944	05/1966	Wurster			
	AI	3,676,242	07/1972	Prentice			
	AJ	3,692,618	09/1972	Dorschner et al.			
	AK	3,855,046	12/1974	Hansen et al.			

**FOREIGN PATENT DOCUMENTS**

		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION	
							YES	NO
	AL	0 353 010 B1	07/1994	EPO				
	AM	0 392 528 A2	10/1990	EPO				
	AN	0 459 003 A1	12/1991	EPO				
	AO	0 557 116 B1	12/1996	EPO				
	AP	0 661 094 B1	12/1997	EPO				

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	AR		Derwent World Patent Database abstract of JP 02-104, 355 A: Description of S. Arakawa, "Nappy With Dedorising Means."
	AS		Derwent World Patent Database abstract of JP 54-141, 857 A: Description of Uni Charm, "Manufacturing Powder-Containing Laminated Sheets."
	AT		American Society for Testing Materials (ASTM) Designation: D 2240-97, "Standard Test Method for Rubber Property-Durometer Hardness," pp. 400-403, March 1997.

EXAMINER

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**\*EXAMINER:** Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

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*EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
	AA	3,940,426	02/1976	Itatani et al.			
	AB	4,069,297	01/1978	Saito et al.			
	AC	4,153,745	05/1979	Hart			
	AD	4,268,417	05/1981	Messer			
	AE	4,285,831	08/1981	Yoshida et al.			
	AF	4,289,513	09/1981	Brownhill et al.			
	AG	4,406,813	09/1983	Fujishima et al.			
	AH	4,504,549	03/1985	Pines et al.			
	AI	4,525,410	06/1985	Hagiwara et al.			
	AJ	4,536,553	08/1985	Rufer et al.			
	AK	4,547,317	10/1985	Kamhi			
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		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION
							YES NO
	AL	0 725 036 B1	08/1999	EPO			
	AM	0 729 914 A2	09/1996	EPO			
	AN	0 782 400 B1	07/1997	EPO			
	AO	0 810 278 A2	12/1997	EPO			
	AP	0 811 388 A1	12/1997	EPO			
<b>OTHER PRIOR ART</b> (Including Author, Title, Date, Pertinent Pages, Etc.)							
	AR	Bartzoka, Vasiliki et al., "Silicone - Protein Films: Establishing the Strength of the Protein-Silicone Interaction," <u>Langmuir</u> , March 1998, Vol. 14, No. 7 pp. 1892-1898.					
	AS	Bartzoka, Vasiliki et al., "Protein - Silicone Synergism at Liquid/Liquid Interfaces," <u>Langmuir</u> , May 2000, Vol. 16, No. 10, pp. 4589-4593.					
	AT	Derbyshire, Frank et al., "The Production of Materials and Chemicals from Coal," <u>American Chemical Society</u> , Fuel Division, Vol. 39, No. 1, Preprints of Papers Presented at the 207th ACS National Meeting, San Diego, CA, March 1994, pp. 113-120.					
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*EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
	AA	4,608,056	08/1986	Wilson			
	AB	4,623,588	11/1986	Nuwayser et al.			
	AC	4,675,140	06/1987	Sparks et al.			
	AD	4,677,019	06/1987	von Blucher			
	AE	4,701,178	10/1987	Glaug et al.			
	AF	4,748,065	05/1988	Tanikella			
	AG	4,762,825	08/1988	Takeo et al.			
	AH	4,764,507	08/1988	Takeo et al.			
	AI	4,795,482	01/1989	Gioffre et al.			
	AJ	4,801,445	01/1989	Fukui et al.			
	AK	4,818,614	04/1989	Fukui et al.			
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		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION
							YES NO
	AL	0 920 817 A2	06/1999	EPO			
	AM	0 930 310 A1	07/1999	EPO			
	AN	91/02711 A2	03/1991	PCT			
	AO	91/12030 A1	08/1991	PCT			
	AP	96/05744 A1	02/1996	PCT			
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	AR	Horiuchi, Shin et al., "Preparation of Pigment-Polymer Hybrid Particles for Plastic Colorants by Dry-Impact Blending Method," <u>Journal of Applied Polymer Science</u> , Vol. 74, No. 7, November 1999, pp. 1762-1772.					
	AS	Huggins, George R. and George Preti, "Vaginal Odors and Secretions", <u>Clinical Obstetrics and Gynecology</u> , Vol. 24, No. 2, June 1981, pp. 355-377.					
	AT	Sombatsompop, N. and P. Lertkamolsin, "Effects of Chemical Blowing Agents on Swelling Properties of Expanded Elastomers," <u>Journal of Elastomers and Plastics</u> , Vol. 32, No. 4, October 2000, pp. 311-328.					
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	AA	4,880,858	11/1989	Farrar et al.			
	AB	4,939,195	07/1990	Ishino et al.			
	AC	4,940,462	07/1990	Salerno			
	AD	4,992,326	02/1991	Dabi			
	AE	5,019,062	05/1991	Ryan et al.			
	AF	5,030,671	07/1991	Wehner et al.			
	AG	5,122,407	06/1992	Yeo et al.			
	AH	5,165,976	11/1992	Newing et al.			
	AI	5,187,287	02/1993	Shih			
	AJ	5,254,168	10/1993	Littman et al.			
	AK	5,267,992	12/1993	Van Tilburg			

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							YES	NO
	AL	96/25225 A1	08/1996	PCT				
	AM	97/03109 A1	01/1997	PCT				
	AN	98/15556 A1	04/1998	PCT				
	AO	98/32915 A1	07/1998	PCT				
	AP	99/58483 A1	11/1999	PCT				

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	AR		Van der Vaart, Rick, "Coated Adsorbents for Pressure Swing Adsorption," description of a Ph.D. project of the OSPT-1995-Enschede at web site <a href="http://www.ct.utwente.nl~ospt/minipost95/ut/rick.html">http://www.ct.utwente.nl~ospt/minipost95/ut/rick.html</a>
	AS		Young, B.R. et al., "Protein Adsorption on Polymeric Biomaterials: I. Adsorption Isotherms," <u>Journal of Colloid and Interface Science</u> , Vol. 124, No. 1, July 1988, pp. 28-43.
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	AA	5,330,944	07/1994	Sherif et al.			
	AB	5,346,486	09/1994	Osborn, III et al.			
	AC	5,352,807	10/1994	Shih			
	AD	5,364,380	11/1994	Tanzer et al.			
	AE	5,376,198	12/1994	Fahrenkrug et al.			
	AF	5,407,442	04/1995	Karapasha			
	AG	5,482,906	01/1996	Sakai et al.			
	AH	5,521,008	05/1996	Lieberman et al.			
	AI	5,536,384	07/1996	Thompson et al.			
	AJ	5,538,641	07/1996	Getty et al.			
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							YES	NO
	AL	99/62997 A1	12/1999	PCT				
	AM	58109135	06/1983	Japan (Abstract)				
	AN	2 137 608 A	10/1984	Great Britain				
	AO	60204610	10/1985	Japan (Abstract)				
	AP	02233140	09/1990	Japan (Abstract)				

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	AA	5,561,167	10/1996	Matsumoto et al.			
	AB	5,571,604	11/1996	Sprang et al.			
	AC	5,625,015	04/1997	Brinen			
	AD	5,633,286	05/1997	Chen			
	AE	5,663,213	09/1997	Jones et al.			
	AF	5,674,212	10/1997	Osborn, III et al.			
	AG	5,685,874	11/1997	Buell et al.			
	AH	5,691,035	11/1997	Chappell et al.			
	AI	5,709,791	01/1998	Hibino et al.			
	AJ	5,712,054	01/1998	Kejha			
	AK	5,713,884	02/1998	Osborn, III et al.			

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							YES	NO
	AL	04256436	09/1992	Japan (Abstract)				
	AM	1158877	09/1997	China (Abstract)				
	AN	2000256999	09/2000	Japan (Abstract)				
	AO	1 103 522 A1	05/2001	EPO				
	AP							

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	AA	5,728,799	03/1998	Oh			
	AB	5,732,718	03/1998	Douglas et al.			
	AC	5,817,229	10/1998	Sudhakar et al.			
	AD	5,834,114	11/1998	Economy et al.			
	AE	5,942,084	08/1999	Thompson et al.			
	AF	5,965,479	10/1999	Suzuki et al.			
	AG	5,981,138	11/1999	Suzuki et al.			
	AH	6,017,831	01/2000	Beardsley et al.			
	AI	6,020,363	02/2000	Hirano et al.			
	AJ	6,037,407	03/2000	Derian et al.			
	AK	6,114,081	09/2000	Oikawa			

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	AA	5,703,152	12/1997	Ohama			
	AB	5,480,636	01/1996	Mauro et al.			
	AC	3,731,678	05/1973	Pyzel			
	AD	4,931,360	06/1991	Hoshino et al.			
	AE	3,919,369	11/1975	Holden			
	AF						
	AG						
	AH						
	AI						
	AJ						
	AK						

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